### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Michelle M. Hanna

Appl. No. To be assigned (Continuation of

Appl. No. 09/984,664; Filed: October 30, 2001)

Filed: March 3, 2004

For: Abortive Promoter Cassettes (as

amended)

Confirmation No. To Be Assigned

Art Unit: To Be Assigned

Examiner: To Be Assigned

Atty. Docket: 2072.0010008/LBB/SJE

### Information Disclosure Statement

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

Listed on accompanying Form PTO-1449 are documents that may be considered material to the examination of this application, in compliance with the duty of disclosure requirements of 37 C.F.R. §§ 1.56, 1.97 and 1.98.

Where the publication date of a listed document does not provide a month of publication, the year of publication of the listed document is sufficiently earlier than the effective U.S. filing date and any foreign priority date so that the month of publication is not in issue. Applicant has listed publication dates on the attached PTO-1449 based on information presently available to the undersigned. However, the listed publication dates should not be construed as an admission that the information was actually published on the date indicated.

Applicant reserves the right to establish the patentability of the claimed invention over any of the information provided herewith, and/or to prove that this information may not be prior art, and/or to prove that this information may not be enabling for the teachings purportedly offered.

This statement should not be construed as a representation that a search has been made, or that information more material to the examination of the present patent application does not exist. The Examiner is specifically requested not to rely solely on the material submitted herewith.

(Cont. of Appl. No. 09/984,664; Filed: October 30, 2001)

This Information Disclosure Statement (IDS) is being filed within three months of the date of filing of a national application. No statement or fee is required. 37 C.F.R. § 1.97(b).

Copies of the cited documents were submitted to the Office in an IDS that complies with 37 C.F.R. § 1.98(a)-(c) in Application No. 09/984,664, filed October 30, 2001, which is relied upon for an earlier filing date under 35 U.S.C. § 120. Thus, copies of these documents are not attached. 37 C.F.R. § 1.98(d).

It is respectfully requested that the Examiner initial and return a copy of the enclosed PTO-1449, and indicate in the official file wrapper of this patent application that the documents have been considered.

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.

Tames B. Bryansky

Lawrence B. Bugaisky Attorney for Applicant Registration No. 35,086

Date: March 3, 2004

1100 New York Avenue, N.W. Washington, D.C. 20005-3934 (202) 371-2600

231823.1

					Page 1 of 20					
-			<del></del>		ATTY. DOCKET NO. APPLICATION NO. 2072.0010008/LBB/SJE To be assigned					
	F	ORM PT	ГО-1449		FIRST NAMED INVENTOR					
INFORM	ΙΛΟΙΤΔΝ	DISCL	OSURE STAT	FMFNT	Michelle M. Hanna FILING DATE ART UNIT					
IN ORK	INTION	DIOCE			March 3, 2004			e assigned		
EXAMINER	<del></del>	DOCI	JMENT	U.S. PAT	TENT DOCUMENTS		Т		r	
INITIAL		NUME	BER	DATE	NAME	CLASS		SUB-CLASS	FILING DATE	
	AA1	3,996	5,345	12/1976	Ullman et al.					
	AB1	4,351	1,760	09/1982	Khanna et al.			_		
	AC1	4,582	2,788	04/1986	Erlich					
	AD1	4,683	3,194	07/1987	Saiki et al.					
	AE1	4,739	9,044	04/1988	Stabinsky					
	AF1	4,757		07/1988	Fung et al.					
	AG1	,	6,600	11/1988	Kramer et al.					
	AH1		0,238	07/1992	Malek et al.					
	Al1	5,169	9,766	12/1992	Schuster et al.					
	AJ1	5,508	8,178	04/1996	Rose et al.			**********		
	AK1	5,59	5,891	01/1997	Rose et al.					
				FOREIGN I	PATENT DOCUMENTS					
EXAMINER INITIAL		NUM	UMENT BER	DATE	COUNTRY	CLASS		SUB-CLASS	TRANSLATION	
	AL1	wo	89/01050	02/09/1989	WIPO	_			Yes No	
	AM1	wo	03/038042 A2	05/08/2003	WIPO				Yes No	
	AN1								Yes No	
	ANI	<del> </del>	-					<del></del>	Yes	
	AO1								No Yes	
	AP1		OTHER (In	cluding Autho	or, Title, Date, Pertinent F	ages, e	tc.)	<u> </u>	No	
	T	Γ	OTHER (III	cluding Auth	or, ritio, bate, retailert	ugoo, o	10.,_			
	AR	1	Agrawal, S., a radioactive la	and Tang, JY., beling," <i>Tetrahe</i>	"Site-specific functionalization edron Lett. 31:1543-1546, Perg	of oligoe gamon Pr	deoxy ress (	/nucleotides fo	or non-	
	AS	1	Chamberlin, I Academic Pre	M.J., "Bacterial ess, New York,	DNA-Dependent RNA Polyme N.Y. pp. 61, 84-86 (1982)	rases," ir	n The	Enzymes, Bo	yer, P.D., ed.,	
	AT	1	Costas, C., e	<i>t al.</i> , "RNA-prote king ATP analo	ein crosslinking to AMP residu g," <i>Nucleic Acids Res. 28</i> :184	9-1858, C	Oxfor	d University P	ress (May 2000)	
EXAMINER	ı	I <u></u> .	1					ONSIDERED		
EXAMINER: Init	ial if refer	ence co	nsidered, wheth	er or not citation is	s in conformance with MPEP 609.	Draw line	e throu	ugh citation if no	ot in conformance	
and not consider	ea. Inclu	ae copy	or this form with	next communicat	пон то Аррисант.					

		Page 2 of 20
	ATTY, DOCKET NO.	APPLICATION NO.
	2072.0010008/LBB/SJE	To be assigned
FORM PTO-1449	FIRST NAMED INVENTOR	
	Michelle M. Hanna	
INFORMATION DISCLOSURE STATEMENT	FILING DATE	ART UNIT
	March 3, 2004	To be assigned

EXAMINER		DOCUMEN	JT				
NITIAL		NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
INTI/AL	AA2	5,648,211	07/1997	Fraiser et al.			
		5 054 440	00/4007	Liquito et el			
	AB2	5,654,142	08/1997	Kievits et al.			
	AC2	5,679,512	10/1997	Laney et al.			
	AD2	5,683,879	11/1997	Laney et al.			
	AE2	5,744,308	04/1998	Guillou-Bonnici et al.			
	AF2	5,766,849	06/1998	McDonough et al.			
	AG2	5,824,517	10/1998	Cleuziat et al.			
	AH2	5,858,801	01/1999	Brizzolara			
	Al2	6,008,334	12/1999	Hanna			
	AJ2	6,107,037	08/2000	Sousa et al.			
	AK2	6,107,039	08/2000	Hanna	-		-
			FOREI	GN PATENT DOCUMENT	s		
EXAMINER NITIAL		DOCUMI		COUNTRY	CLASS	SUB-CLASS	TRANSLATION
		TOWNE					Ye
	AL2						Ye
	AM2	_					Ye
	AN2						Ye
-	AO2						Ye
14.15	AP2						N
	<del></del>	<u> </u>	THER (Including A	uthor, Title, Date, Pertine	ent Pages, etc	.)	
	AR	2   RN	ube, S.S., and von Hi A-DNA Bubble Duple ence (1992)	ppel, P.H., "Functional Transo exes," <i>Science 258</i> :1320-1324	cription Elongatio I, American Asso	on Complexes fro ociation for the A	om Synthetic dvancement of
	AS	2 Du	nn, J.J., and Studier, cations of T7 Genetic	F.W., "Complete Nucleotide S Elements," <i>J. Mol. Biol.</i> 166:4	Sequence of Bac 177-535, Acaden	teriophage T7 D nic Press, Inc. (1	NA and the 983)
	АТ	2 Ga	it, M.J., et al., "Oligor ford University Press	ibonucleotide synthesis," in O , Oxford, Great Britain, pp. 25	Nigonucleotides a -31 (1992)	and Analogues, I	Eckstein, F., ed.
EXAMINER					DATE	CONSIDERED	
				tion is in conformance with MPER			

		Page 3 of 20	
	ATTY. DOCKET NO.	APPLICATION NO.	
	2072.0010008/LBB/SJE	To be assigned	
FORM PTO-1449	FIRST NAMED INVENTOR		
	Michelle M. Hanna		
INFORMATION DISCLOSURE STATEMENT	FILING DATE	ART UNIT	
	March 3 2004	To be assigned	

EXAMINER		DOCUMENT					
NITIAL	1	NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE   03/19/92
	AA3	5,399,491	03/21/95	Kacian et al.			03/19/92
	AB3	5,888,819	03/30/99	Goelet et al.			03/05/91
	AC3	5,554,516	09/10/96	Kacian et al.			12/02/93
	AD3	5,571,669	11/05/1996	Lu et al.			01/14/1993
	AE3	6,251,594 B1	06/26/2001	Gonzalgo et al.			06/09/1998
	AF3	2003/0099950 A1	05/29/2003	Hanna, M.M.			10/30/2001
	AG3						
	АН3						
	Al3						
	AJ3						
	АК3						
			FOREIG	N PATENT DOCUMEN	ITS		
EXAMINER NITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	41.0		The state of the s				Ye
	AL3			<del></del>			Ye
	AM3						Ye
	AN3						10
							Ye
	AO3						Ye
	AP3						
		OTHER (	Including Au	thor, Title, Date, Perti	nent Pages, etc.	)	
	AR	Gait, M.J., practical ap	"An Introduction proach, Gait, N	n to Modern Methods of D M.J., ed., Oxford University	NA Synthesis," in ( y Press, Oxford, Gr	Oligonucleotide s eat Britain, pp.1	synthesis: a -22 (1984)
	AS	Geider, K., form conve	et al., "An RNA ersion," <i>Proc. N</i>	A transcribed from DNA at atl. Acad. Sci. USA 75:645	the origin of phage 5-649, National Aca	fd single strand demy Press (19	to replicative 78)
	AT	Guatelli, J. modeled at (1990)	C., <i>et al.</i> , "Isoth fter retroviral re	nermal, <i>in vitro</i> amplification plication," <i>Proc. Natl. Acad</i>	n of nucleic acids b d. Sci. USA 87:187	y a multienzyme 4-1878, Nationa	e reaction I Academy Pre
EXAMINER					DATE	CONSIDERED	

FORM PTO-1449
INFORMATION DISCLOSURE STATEMENT

	Page 4 of 20	
ATTY, DOCKET NO.	APPLICATION NO.	
2072.0010008/LBB/SJE	To be assigned	
FIRST NAMED INVENTOR		
Michelle M. Hanna		
FILING DATE	ART UNIT	
March 3 2004	To be assigned	

		<del>-</del>		U.S.	PATENT DOCUMEN	TS		
EXAMINER			MENT		NAME		SLIP OLASS	FILING DATE
INITIAL	AA4	NUME	oek	DATE	INAIVIE	CLASS	SUB-CLASS	FILING DATE
	AB4							
	AC4							
	AD4		<del>-</del>					i
	AE4							
	AF4							
	AG4							
	AH4							
	Al4							
	AJ4							
	AK4							
	<u> </u>	<u> </u>		FOREI	GN PATENT DOCUM	ENTS		
EXAMINER INITIAL			CUMENT MBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AL4							Yes No
	AM4							Yes No
								Yes No
	AN4						( - 1	Yes No
	AO4							Yes
	AP4		OTHER	(Including A	uthor, Title, Date, Pe	rtinent Pages, etc.	<u> </u>	No
		T	OTHER	(including A	dunor, Title, Date, Fe	runent rages, etc.	<i>)</i>	
	AR	4	Gupta, K. containing	C., et al., "A ge g oligonucleotio	eneral method for the syn des," <i>Nucleic Acids R</i> es.	thesis of 3□-sulfhydry 19:3019-3025, Oxford	l and phosphate University Pres	group s (1991)
	AS	4	Gurevich,	, V.V., et al., "P chem. 195:207	reparative <i>in Vitro</i> mRNA -213, Academic Press, Ir	N Synthesis Using SP6 nc. (1991)	3 and T7 RNA P	olymerases,"
	AT	4	Hanna, M Enzymol.	I.M., "Photoaffi 180:383-409,	nity Cross-Linking Metho Academic Press, Inc. (19	ds for Studying RNA- 89)	Protein Interacti	ons," <i>Methods</i>
EXAMINER						DATE	CONSIDERED	
EXAMINER: I	nitial if refe	rence co	onsidered, w	hether or not cita	ition is in conformance with lunication to Applicant.	MPEP 609. Draw line th	rough citation if no	ot in conformance
and not consid	ereu. <u>I</u> ncil	rae cob	or unstorm	ANTIL LIGYT COLLILLE	unioalion to Applicant.			

		Page 5 of 20
	ATTY, DOCKET NO.	APPLICATION NO.
	2072.0010008/LBB/SJE	To be assigned
FORM PTO-1449	FIRST NAMED INVENTOR	
	Michelle M. Hanna	
INFORMATION DISCLOSURE STATEMENT	FILING DATE	ART UNIT
	March 3, 2004	To be assigned

EXAMINER	1 - 1	DOCU	MENT	1	PATENT DOCUMENTS			
INITIAL		NUMB		DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA5					,		
-	AB5							
	AC5							
	AD5			<del> </del>				
	AE5							-
	AF5							
-	AG5				-			
	AH5							
·	Al5			-			-	
	AJ5							
	AK5							
EVANUED		1000	UMENT	FOREI	GN PATENT DOCUME	NTS	1	
EXAMINER INITIAL		NUM		DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AL5							Yes No
								Yes
	AM5							No Yes
	AN5							No.
	AO5				1			Yes No
	AP5							Yes No
	IAFS		OTHER	(Including A	uthor, Title, Date, Perl	inent Pages, etc.	)	
	AR	<u>5</u>	elongatio	1.M., et al., "Pronce of the complexes upported to the complexes upport of the complex of the co	obing the environment of natilizing a new fluorescent ri Press (1999)	ascent RNA in <i>Esch</i> bonucleotide analog	erichia coli trans ," Nucleic Acids	scription Res. 27:1369-
	AS	<u>5</u>	in photoa	1.M., <i>et al.</i> , "Sy ffinity labeling <sup>l</sup> y Press (1993)	nthesis and characterizatic E. <i>coli</i> and T7 RNA polyme	on of a new photocro rases," <i>Nucleic Acid</i>	esslinking CTP a s Res. 21:2073-	nalog and its use 2079, Oxford
	AT	<u>5</u>	He, B., e	t al., "Preparati ns," <i>Nucleic Ac</i>	on of probe-modified RNA cids Res. 23:1231-1238, O	with 5-mercapto-UT xford University Pres	P for analysis of ss (1995)	f protein-RNA
EXAMINER		<u> </u>	<u> </u>			DATE	CONSIDERED	<del></del>

SKGF Rev. 12/03/03

	Page 6 of 20
ATTY, DOCKET NO.	APPLICATION NO.
2072.0010008/LBB/SJE	To be assigned
FIRST NAMED INVENTOR	
Michelle M. Hanna	
FILING DATE	ART UNIT
March 3, 2004	To be assigned

				U.S.	PATENT DOCUMENTS	S		
EXAMINER		DOCU	JMENT	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
INITIAL	AA6	NUM	<u> </u>	IDATE	INAINIE	CLASS	30D-CLASS	TILING DATE
<del></del>	AB6							
	AC6							
	<u> </u>							
	AD6							
	AE6							
	AF6							
	AG6		·					
MV	AH6							
	Al6							
	AJ6							
	AK6							
EVALUNED		100	CLIMENT	FOREI	GN PATENT DOCUME	NTS	1	
EXAMINER INITIAL			CUMENT MBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AL6							Yes No
								Yes No
<u> </u>	AM6	-						Yes
	AN6							No Yes
	A06							No Yes
	AP6				11 Title Date Don	tinant Dance of	\	No
	<u> </u>	<u> </u>	OTHER	(Including A	uthor, Title, Date, Per	tinent Pages, etc.	)	
	AR	<u>6</u>	immunode	eficiency virus	scription-based amplificati type 1 with a bead-based s onal Academy Press (198	sandwich hybridizati	ction of amplified on format," <i>Prod</i>	d human c. <i>Natl. Acad. Sci.</i>
	AS	<u>6</u>	Lewis, M. Polymera Biology (1	ise II," <i>J. Biol</i> . (	s, R.R., "Transcription of S Chem. 255:4928-4936, Am	Simian Virus 40 DNA nerican Society for Bi	by Wheat Gerrochemistry and	n RNA Molecular
	AT	<u>6</u>	Martin, C. 27:3966-3	.T., et al., "Prod 3974, American	cessivity in Early Stages of n Chemical Society (1988)	f Transcription by T7	RNA Polymera	se," <i>Biochemistry</i>
EXAMINER		1				DATE	CONSIDERED	
EXAMINER: 1	nitial if refe	rence c	onsidered, w	hether or not cita	tion is in conformance with M	PEP 609. Draw line th	rough citation if no	ot in conformance
and not consid	ered Inch	ide con	v of this form	with next commi	unication to Applicant.			

		Page 7 of 20
	ATTY, DOCKET NO.	APPLICATION NO.
	2072.0010008/LBB/SJE	To be assigned
FORM PTO-1449	FIRST NAMED INVENTOR	
	Michelle M. Hanna	
INFORMATION DISCLOSURE STATEMENT	FILING DATE	ART UNIT
	March 3, 2004	To be assigned

		<u></u>		U.S	PATENT DOCUMENT	S		<u> </u>		
EXAMINER			MENT				CLIP CLASS	EILING DATE		
INITIAL	AA7	NUME	SEK	DATE	NAME	CLASS	SUB-CLASS	FILING DATE		
<del></del>	AB7						<u> </u>			
	AC7									
	AD7									
	AE7									
	AF7									
	AG7		<u> </u>							
	AH7			<del> </del>						
	AI7									
	AJ7									
	AK7									
		1000	SUBSENIT	FORE	IGN PATENT DOCUME	NTS	<del>-</del> 1			
EXAMINER INITIAL			UMENT IBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION		
	AL7							Yes No		
	AM7							Yes No		
								Yes No		
	AN7							Yes		
	AO7	-						No Yes		
	AP7		OTUE	) (In alcoding	Author Title Date Por	tinont Pages etc	1	No		
	OTHER (Including Author, Title, Date, Pertinent Pages, etc.)									
	AR	7	Deoxyuri	.L., and Hanna dine Phosphor n Chemical Soo	ı, M.M., "Synthesis and Ch amidite for Site-Specific M ciety (1996)	earacterization of a No lodification of DNA," <i>l</i>	ew 5-Thiol-Prote Bioconjugate Ch	ected eem. 7:401-412,		
	AS	7	Milligan, Enzymol	J.F., and Uhle . 180:51-62, Ad	nbeck, O.C., "Synthesis of cademic Press, Inc. (1989)	Small RNAs Using T	7 RNA Polymer	ase," <i>Methods</i>		
	АТ	Z	Montema motors,"	agno, C., and E Nanotechnolog	Bachand, G., "Constructing	ı nanomechanical dev hing, Ltd. (1999)	vices powered b	y biomolecular		
EXAMINER			<u> 1</u>			DATE	CONSIDERED			
EXAMINER: 1	nitial if refe	rence c	onsidered, w	hether or not cit	ation is in conformance with N	MPEP 609. Draw line th	rough citation if no	ot in conformance		
and not consid	tered. Incli	ide cop	of this form	with next comm	nunication to Applicant.					

FORM PTO-1449
INFORMATION DISCLOSURE STATEMENT

	Page 8 of 20
ATTY, DOCKET NO.	APPLICATION NO.
2072.0010008/LBB/SJE	To be assigned
FIRST NAMED INVENTOR	
Michelle M. Hanna	
FILING DATE	ART UNIT
March 3 2004	To be assigned

				U.S.	PATENT DOCUMEN	TS		
EXAMINER INITIAL		DOCU NUMB		DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA8							
	AB8							
	AC8		<del></del>					
	AD8							
	AE8							
	AF8							
	AG8							
	AH8							
	Al8							
	AJ8		-					
	AK8							
		L	··	FOREI	GN PATENT DOCUM	ENTS		
EXAMINER INITIAL			UMENT IBER	DATE	COUNTRY	CLASS	SUB-CLASS	
	AL8							Yes No
	AM8							Yes No
	AN8							Yes No
	AO8	1			1 T N 1 T 1 T 1 T 1 T 1 T 1 T 1 T 1 T 1			Yes No
	AP8							Yes No
	AFO		OTHER	(Including A	uthor, Title, Date, Pe	rtinent Pages, et	c.)	
	AR	8	Mullis, K., Cold Sprir	et al., "Specifi ng Harb. Symp	c Enzymatic Amplificatio D. Quant. Biol. 51:263-27:	n of DNA In Vitro: TI 3, Cold Spring Harbo	ne Polymerase Cl or Laboratory (19	hain Reaction," 86)
	AS	8	Mullis, K.E Erlich, H.A	3., <i>et al.</i> , "The A., <i>et al.,</i> eds.,	Polymerase Chain Reac Cold Spring Harbor Labo	tion: Why It Works," oratory Press, Wood	in <i>Polymerase Ci</i> bury, N.Y., pp. 23	hain Reaction, 37-243 (1989)
	AT	8	Nelson, P able to de (1989)	.S., <i>et al.</i> , "Bifo tect single bas	unctional oligonucleotide se pair mutations," Nucle	probes synthesized ic Acids Res. 17:718	using a novel CF 17-7194, Oxford U	PG support are Iniversity Press
EXAMINER		<u> </u>	L			DA	E CONSIDERED	)
EXAMINER: I	nitial if refe	rence co	onsidered, wh	nether or not cita	ation is in conformance with	MPEP 609. Draw line	through citation if n	ot in conformance
and not consid	ierea. Inclu	ue copy	of this form	with next comm	unication to Applicant.			

		Page 9 of 20
	ATTY, DOCKET NO.	APPLICATION NO.
•	2072.0010008/LBB/SJE	To be assigned
FORM PTO-1449	FIRST NAMED INVENTOR	
	Michelle M. Hanna	
INFORMATION DISCLOSURE STATEMENT	FILING DATE	ART UNIT
	March 3, 2004	To be assigned

XAMINER		DOCUMEN'		S. PATENT DOCUMENT		T			
NITIAL	100	NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE		
	AA9								
	AB9								
· · · · · · · ·	AC9								
	AD9								
	AE9								
	AF9								
	AG9		_						
	AH9								
	AI9								
<u>.</u>		<u></u>							
	AJ9								
	AK9								
->/4149455		L DOOLING		EIGN PATENT DOCUME	ENTS				
XAMINER NITIAL		DOCUME NUMBER		COUNTRY	CLASS	SUB-CLASS	TRANSLATION Ye		
	AL9						N		
	AM9						Ye N		
							Ye N		
	AN9	1,01		- 7			Ye N		
	AO9						Ye		
	AP9		HER (Including	Author, Title, Date, Per	tinent Pages etc	1	N		
	AR	9 Prin	Pringsheim, P., "Fluorescence of organic compounds,"in Fluorescence and phosphorescence, Pringsham, P., ed., Interscience Publishers, Inc. New York, N.Y., pp. 392-397, 420-423 (1949)						
	AS	9 Saik Poly	ki, R.K., <i>et al.</i> , "Pri ymerase," <i>Science</i>	mer-Directed Enzymatic Am 239:487-491, American As	plification of DNA wit sociation for the Adv	h a Thermostab ancement of Sci	le DNA ence (1988)		
	AT	9 Olig	na, N.D., and Strie conucleotides and -189, 200-201 (19	peke, S., "Oligonucleotides Analogues: A Practical App 92)	with reporter groups roach, Eckstein, F., e	attached to the d., Oxford Unive	5⊡-terminus," in ersity Press pp.		
EXAMINER					DATE	CONSIDERED			
					ĺ				

		Page 10 of 20
	ATTY, DOCKET NO.	APPLICATION NO.
	2072.0010008/LBB/SJE	To be assigned
FORM PTO-1449	FIRST NAMED INVENTOR	
	Michelle M. Hanna	
INFORMATION DISCLOSURE STATEMENT	FILING DATE	ART UNIT
	March 3, 2004	To be assigned

				<u> </u>	PATENT DOCUMENT	<u>'S</u>		<del>, - · · · · · · · · · · · · · · · · · · </del>
EXAMINER INITIAL		DOCU	JMENT BER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA10							
	AB10							
*	AC10							
	AD10							
	AE10							_
	AF10							
	AG10						-	
	AH10							_
	Al10							
	AJ10							
-	AK10							
EVALUATED		I DOC	CUMENT	FOREI	GN PATENT DOCUME	NTS		
EXAMINER INITIAL			MBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AL10							Yes No
	AM10							Yes No
								Yes
	AN10	7		7 1		1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1		Yes
	AO10	-						Yes
	AP10	J	OTHER	(Including A	Author, Title, Date, Per	tinent Pages, etc.	<u> </u> 	No
	AR	10	Polymera	O., et al., "Det se Chain Read 199-203(1989)	ection of Targeted Gene Netion, Erlich, H.A., et al., ed	Modifications by Polyi ds., Cold Spring Harb	merase Chain R or Laboratory P	eaction," in ress, Woodbury,
	AS	<u>10</u>	phosphor	.S., <i>et al.</i> , "The amidites; uses niversity Press	e synthesis of protected 5□ of 5□-mercapto-oligodeox (1987)	]-mercapto-2□,5□-di xyribonucleotides," <i>N</i>	deoxyribonucleo ucleic Acids Re	oside-3⊡-O- s. <i>15</i> :4837-4848,
	AT	10	Walker, G	S.T., et al., "Iso Proc. Natl. Aca	thermal <i>in vitro</i> amplification ad. Sci. USA 89:392-396, N	on of DNA by a restri National Academy Pr	ction enzyme/Di ess (1992)	NA polymerase
EXAMINER		<u> </u>	1			DATE	CONSIDERED	
_, 0								

		Page 11 of 20
	ATTY, DOCKET NO.	APPLICATION NO.
	2072.0010008/LBB/SJE	To be assigned
FORM PTO-1449	FIRST NAMED INVENTOR	
	Michelle M. Hanna	
INFORMATION DISCLOSURE STATEMENT	FILING DATE	ART UNIT
THE OTHER PROPERTY.	March 3, 2004	To be assigned

EXAMINER		DOCUMENT		PATENT DOCUMENTS			
NITIAL		NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA11						
	AB11						
	AC11	<del></del>					
	AD11		-				
	AE11		,				
	AF11						
	AG11						
	AH11						
	Al11 ·			-			
	AJ11						
	AK11	<u> </u>					
<del> </del>	1		FORE	GN PATENT DOCUME	NTS		1
EXAMINER NITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AL11						Ye N
	AM11						Ye N
	AN11						Ye N
							Ye N
	AO11						Ye N
	AP11	OTHE	R (Including A	Author, Title, Date, Pert	inent Pages, etc.	)	
	AR	Zuckerr syntheti	nann, R., <i>et al.</i> , ' c oligodeoxyribo	"Efficient methods for attac nucleotides," <i>Nucleic Acid</i>	hment of thiol specif s Res. 15:5305-5321	ic probes to the	3□-ends of sity Press (1987
	AS	Daube Comple	et al., "Functiona xes," Science, 1	al Transcription Elongation 992, vol. 258, pages 1320-	Complexes from Syr 1324	nthetic RNA-DN	A Bubble
	АТ	11 Mancini Retinob	et al, "Constitu lastoma Gene (l	utively Methylated CpG Din RB1), American Journal of	ucleotides as Mutati Human Genetics, 19	on Hot Spots in 997, vol. 61, pag	the es 80-87
EXAMINER	<u> </u>				DATE	CONSIDERED	
				ation is in conformance with M	1		

Page 12 of 20
APPLICATION NO.
To be assigned
ART UNIT
To be assigned

		-		U.S.	PATENT DOCUMEN	ITS	· · · · · · · · · · · · · · · · · · ·	
EXAMINER INITIAL		DOC NUM	UMENT BER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA12							
	AB12							
	AC12							
	AD12							
	AE12		·····					
	AF12							
	AG12							
	AH12	_						
	Al12	-						
<del></del>	AJ12	+	<u> </u>					
	AK12							
				FOREI	GN PATENT DOCUM	IENTS		
EXAMINER INITIAL			UMENT MBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AL12							Yes No
<del>-</del>	AM12		-					Yes No
	AN12							Yes No
<u> </u>		<del>-</del>						Yes No
	AO12	<del> </del>						Yes
<u></u>	AP12		OTHER (I	ncluding A	author, Title, Date, Po	ertinent Pages, et	c.)	
	AR	<u>12</u>	Internationa Internationa	Il Search Rep Il Searching	port for International App Authority/USA, Washing	olication No. PCT/US ton, D.C.	602/34419, mailed	July 24, 2003,
	AS	<u>12</u>	Antequerra, F., and Bird, A., "Number of CpG islands and genes in human and mouse," <i>Proc. Natl. Acad. Sci. USA 90</i> :11995-11999, National Academy of Sciences (1993)					
	AT	<u>12</u>	Callahan, R Academy of	., <i>et al.</i> , "Fre f Sciences (1	quent Mutations in Brea 993)	st Cancer," <i>Ann. N.</i> )	∕. Acad. Sci. 698:2	21-30, New York
EXAMINER		l				DA	TE CONSIDEREE	)
EXAMINER: In	itial if refer	ence c	onsidered, whe	ther or not cita	tion is in conformance with	MPEP 609. Draw line	through citation if n	ot in conformance
and not conside 231858.1	red. Inclu	de cop	y of this form wi	tn next commi	unication to Applicant.			

### FORM PTO-1449

**INFORMATION DISCLOSURE STATEMENT** 

Page 13 of 20

ATTY. DOCKET NO.
2072.0010008/LBB/SJE

FIRST NAMED INVENTOR
Michelle M. Hanna

FILING DATE

March 3, 2004

Page 13 of 20

APPLICATION NO.
To be assigned

				11.6.5	ATENT DOCUMEN	ITC	•		
EXAMINER		DOCU	IMENT	U.S. P	PATENT DOCUMEN	412		I	
INITIAL		NUMB		DATE	NAME	c	LASS	SUB-CLASS	FILING DATE
	AA13								
	AB13			•					
	AC13								
	AD13								
<del></del>	AE13								
	AF13								
	AG13	-							
	AH13		·						
	Al13								
	AJ13	1							
	AK13						****		
			******	FOREIG	N PATENT DOCUM	MENTS		<u> </u>	<u> </u>
EXAMINER INITIAL		DOCU	JMENT BER	DATE	COUNTRY	c	LASS	SUB-CLASS	TRANSLATION
	AL13								Yes No
	AM13								Yes No
	AN13								Yes No
	AO13		-						Yes No
	AP13		·						Yes No
			OTHER (I	ncluding Au	thor, Title, Date, P	ertinent Pag	es, etc.)		
	AR	<u>13</u>	instability of	., and Fidler, I. clones isolate ademy of Scie	J., "Increasing metast d from murine neopla nces (1981).	tatic potential i sms," <i>Proc. Na</i>	s associat	ed with increas Sci. USA 78:69	sing genetic 49-6952,
	AS	<u>13</u>	Esteller, M., et al., "Promoter Hypermethylation and BRCA1 Inactivation in Sporadic Breast and Ovarian Tumors," <i>J. Natl. Cancer Inst.</i> 92:564-569, Oxford University Press (April 2000). (Retrieved from LexisNexis Academic database)					reast and I). (Retrieved	
	АТ	<u>13</u>	Frommer, M., et al., "A genomic sequencing protocol that yields a positive display of 5-methylcytosine residues in individual DNA strands," <i>Proc. Natl. Acad. Sci. USA</i> 89:1827-1831, National Academy of Sciences (1992)						
EXAMINER							DATE	CONSIDERED	
EYAMINED: In	itial if refere	nce co	nsidered whet	her or not citatio	on is in conformance with	MPEP 609. Dr	aw line thre	ough citation if no	ot in conformance
and not conside	ered. Includ	le copy	of this form wi	th next commun	ication to Applicant.				

	Page 14 of 2
DOCKET NO.	APPLICATION NO.
010008/LBB/SJE	To be assigned

ATTY. DOCKET NO. 2072.0010008/LBB/SJE FIRST NAMED INVENTOR

Michelle M. Hanna

FILING DATE March 3, 2004 ART UNIT To be assigned

				U.S. F	PATENT DOCUMEN	TS			
EXAMINER INITIAL		DOC NUM	UMENT BER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE	
	AA14							•	
	AB14								
	AC14								
	AD14	<del>                                     </del>							
	AE14	-							
	AF14		-						
	AG14	<u> </u>							
	AH14			<u> </u>					
	AI14								
	AJ14	ļ . <u>-</u>							
	AK14						<u> </u>		
	AKIT			FOREIG	N PATENT DOCUM	ENTS			
EXAMINER			UMENT	1			T		
INITIAL		NUÑ	IBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION Yes	
	AL14	ļ						No Yes	
	AM14							No Yes	
	AN14							No	
	AO14							Yes No	
	AP14							Yes No	
····			OTHER (	Including Au	ıthor, Title, Date, Pe	rtinent Pages, etc.			
	AR	<u>14</u>	Giusti, W.G Oligonucleo	i., and Adriano otides," <i>PCR M</i>	, T., "Synthesis and Ch dethods Appl. 2:223-22	aracterization of 5'-Flu 7, Cold Spring Harbor	orescent-dye-la Laboratory Pres	abeled ss (1993)	
	AS	14	Gupta, K.C., et al., "A general method for the synthesis of 3'-sulfhydryl and phosphate group containing oligonucleotides," <i>Nucleic Acids Res.</i> 19:3019-3025, Oxford University Press (1991)						
	AT	<u>14</u>	Aberrant D	Herman, J.G., et al., "Inactivation of the CDKN2/p16/MTS1 Gene Is Frequently Associated with Aberrant DNA Methylation in All Common Human Cancers," Cancer Res. 55:4525-4530, American Association for Cancer Research (1995)					
EXAMINER			-			DATE	CONSIDERED		
EXAMINER: In	nitial if refere	ence co	onsidered, whe	ther or not citation	on is in conformance with	MPEP 609. Draw line the	ough citation if no	ot in conformance	
and not conside	ered. Includ	le copy	of this form w	ith next commun	nication to Applicant.				

Page 15 of 20
APPLICATION NO.
To be assigned
ART UNIT
To be assigned

				U.S.	PATENT DOCUMEN	NTS		
EXAMINER INITIAL		DOC	UMENT IBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA15							
	AB15							
	AC15							
	AD15							
	AE15							
	AF15	ļ						
	AG15							
	AH15							
	Al15							
	AJ15	1						
· · · · · · · · · · · · · · · · · · ·	AK15	<del>                                     </del>	. <del>.</del>					-
		1		FOREIG	ON PATENT DOCUM	MENTS		
EXAMINER INITIAL			CUMENT MBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AL15	1						Yes No
		-						Yes No
	AM15							Yes
	AN15	<u> </u>						No Yes
	AO15	<del> </del>						No Yes
	AP15		OTLIED (	Including A	uthor, Title, Date, P	ortinent Pages etc	1	No
			OTHER (	including A	utnor, Title, Date, P	ertinent Pages, etc	·1	
	AR	<u>15</u>	Herman, J. colorectal of	G., et al., "Inc arcinoma," <i>Pi</i>	idence and functional c roc. Natl. Acad. Sci. US	consequences of hMLF 6A 95:6870-6875, Natio	d1 promoter hyponal Academy of	ermethylation in Sciences (1998)
	AS	<u>15</u>	Horii, A., et Primary Ca	Horii, A., et al., "Frequent Replication Errors at Microsatellite Loci in Tumors of Patients with Multiple Primary Cancers," Cancer Res. 54:3373-3375, American Association for Cancer Research (1994)				
	АТ	<u>15</u>	Issa, JP.J., et al., "Methylation of the oestrogen receptor CpG island links ageing and neoplasia in human colon," Nat. Genet. 7:536-540, Nature Publishing Co. (1994)					
EXAMINER						DATI	E CONSIDERED	)
EXAMINER: 1	nitial if refer	ence c	onsidered, whe	ther or not citat	tion is in conformance with	n MPEP 609. Draw line t	hrough citation if n	ot in conformance
and not consid	lered. Includ	de cop	y of this form w	ith next commu	inication to Applicant.		<del></del>	

Page 16 of 20
LICATION NO.
ne assigned
UNIT
ne assigned

				U.S.	PATENT DOCUMENT	S		
EXAMINER INITIAL		DOC NUM	UMENT BER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA16							
	AB16							
	AC16			-				
	AD16							
	AE16							
	AF16	_						
	AG16							
	AH16							
	Al16	_	·					
	AJ16	-						
	AK16	_						
	ARTO	_		FORE	GN PATENT DOCUME	NTS		
EXAMINER			UMENT			CLASS	SUB-CLASS	TRANSLATION
INITIAL	_	NUM	MBER	DATE	COUNTRY	CLASS	30B-CLAGS	Yes
	AL16	-						Yes
	AM16	+						No Yes
	AN16	_						No Yes
	AO16	ļ						No Yes
	AP16		OTHER	(Including A	Author, Title, Date, Per	tinent Pages etc	1	No
	AR	<u>16</u>	lin D.1."	Δn Escherichi	a coli RNA Polymerase Docts," J. Mol. Biol. 236:72-8	efective in Transcript	ion due to its O	verproduction of
	AS	<u>16</u>	Langer, P.R., et al., "Enzymatic synthesis of biotin-labeled polynucleotides: Novel nucleic acid affinity probes," <i>Proc. Natl. Acad. Sci. USA</i> 78:6633-6637, National Academy of Sciences (1981)					eic acid affinity 81)
	АТ	<u>16</u>	Loeb, L.A. 51:3075-3	, "Mutator Pho 079, America	enotype May Be Required n Association for Cancer F	for Multistage Carcir Research (1991)	nogenesis," <i>Cai</i>	ncer Res.
EXAMINER						DATE	CONSIDERE	)
EXAMINER:	nitial if refer	ence c	onsidered, wh	ether or not cita	ation is in conformance with M	IPEP 609. Draw line th	rough citation if n	ot in conformance
and not consid	lered. Inclu	de cop	y of this form v	with next comm	unication to Applicant.			

Page 17 of 20
APPLICATION NO.
To be assigned
ART UNIT
To be assigned

				U.S.	PATENT DOCUMENT	S		<del></del>
EXAMINER INITIAL			UMENT IBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA17							
	AB17							
<del></del>	AC17						+	
	AD17	ļ						
	AE17					_		
	AF17	-						
	AG17							
	AH17							
	Al17							
	AJ17							
	AK17							
		<u>.l</u> .		FOREI	GN PATENT DOCUME	ENTS		
EXAMINER INITIAL			UMENT MBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AL17							Yes No
			-					Yes No
	AM17		·					Yes
	AN17	+		<u> </u>				No Yes
	AO17	-					-	No Yes
	AP17		OTHER /	Including A	uthor, Title, Date, Per	tinent Pages etc	1	No
		I	OTHER (	including A	utnor, Title, Date, Per	tinent Pages, etc.	<u> </u>	
	AR	<u>17</u>	Meinkoth, J Biochem. 1	., and Wahl, 38:267-284,	G., "Hybridization of Nucle Academic Press, Inc. (198	eic Acids Immobilized 34)	l on Solid Supp	orts," <i>Anal</i> .
	AS	17	Nowell, P.C Association	Nowell, P.C., "The Clonal Evolution of Tumor Cell Populations," <i>Science 194</i> :23-28, American Association for the Advancement of Science (1976)				
	AT	17	Palmisano, Sputum," C	W.A., et al., ancer Res. 6	"Predicting Lung Cancer b 0:5954-5958, American A	by Detecting Aberran ssociation for Cance	t Promoter Metr r Research (No	nylation in vember 2000)
EXAMINER		L				DATE	CONSIDERED	
EXAMINER: I	nitial if refer	ence c	onsidered, whe	ther or not cita	tion is in conformance with M	IPEP 609. Draw line th	rough citation if no	ot in conformance
and not consid	ered. Inclu	de cop	y of this form w	th next commu	inication to Applicant.			

ATTY. DOCKET NO. 2072.0010008/LBB/SJE

FILING DATE March 3, 2004 Page 18 of 20
APPLICATION NO. To be assigned

FIRST NAMED INVENTOR Michelle M. Hanna

ART UNIT To be assigned

XAMINER			JMENT		PATENT DOCUMENT		T	50,000,000	
NITIAL	AA18	NUME	BER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE	
<u> </u>									
	AB18								
	AC18								
	AD18							*	
	AE18								
	AF18								
	AG18								
	AH18		-						
	Al18		•						
	AJ18	ļ							
	AK18								
		L		FOREIG	GN PATENT DOCUME	NTS			
XAMINER NITIAL		DOC	UMENT BER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION	
	A1 10							Ye:	
	AL18_	_	-					Ye	
	AM18	<del> </del>						Ye	
	AN18							N Ye	
	AO18							N	
_	AP18							Ye N	
	[AF 10	٠.	OTHER	R (Including A	uthor, Title, Date, Per	tinent Pages, etc.	)		
	AR	<u>18</u>	elongation	ki, M., and Job, on catalyzed by ictwo Naukowe	D., "Effect of disulfide and Escherichia coli RNA poly (1994)	l sulfhydryl reagents merase," <i>Acta Bioch</i>	on abortive and im. Pol. 41:415	I productive -419, Panstwowe	
	AS	<u>18</u>	Rice, J.C decrease (1998)	Rice, J.C., et al., "Aberrant methylation of the BRCA1 CpG island promoter is associated with decreased BRCA1 mRNA in sporadic breast cancer cells," Oncogene 17:1807-1812, Stockton Press (1998)					
	АТ	<u>18</u>		on, K.D., "DNA r ng Group (May 2	methylation, methyltransfe 2001)	rases, and cancer,"	Oncogene 20:3	139-3155, Natur	
EXAMINER						DATE	CONSIDERED	)	

	Page 19 of 20
ATTY, DOCKET NO.	APPLICATION NO.
2072.0010008/LBB/SJE	To be assigned
FIRST NAMED INVENTOR	
Michelle M. Hanna	
FILING DATE	ART UNIT
March 3, 2004	To be assigned

				U.S. P.	ATENT DOCUMENT	rs			
EXAMINER INITIAL		DOCL NUME	JMENT BER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE	
	AA19								
	AB19								
	AC19								
	AD19								
<del></del> .	AE19					-			
	AF19								
	AG19								
	AH19								
	Al19	-							
	AJ19								
	AK19			FOREICE	N PATENT DOCUM	FNTS			
EXAMINER		DOCUMENT				CLASS	SUB-CLASS	TRANSLATION	
INITIAL		NUM	BER	DATE	COUNTRY	CLASS	SUB-CLASS	Yes	
	AL19						<del></del>	No Yes	
	AM19	АМ19						No Yes	
	AN19							No Yes	
	AO19							No Yes	
	AP19			:				No.	
			OTHER (I	ncluding Au	thor, Title, Date, Pe	rtinent Pages, et	c.)		
	AR  19  Tlsty, T.D., et al., "Differences in the rates of gene amplification in nontumorigenic lines as measured by Luria-Delbrück fluctuation analysis," <i>Proc. Natl. Acad. Sci. U</i> National Academy of Sciences (1989)						ntumorigenic and Acad. Sci. USA	tumorigenic cell 86:9441-9445,	
	AS	<u>19</u>	Toyota, M., Biol. 9:349-3	and Issa, JP. 357, Academic	J., "CpG island methyl Press (1999)	ator phenotypes in a	iging and cancer	" Semin. Cancer	
	AT	<u>19</u>	Toyota, M., and Issa, JP.J., "The role of DNA hypermethylation in human neoplasia," <i>Electrophores</i> 21:329-333, Wiley-VCH Verlag GmbH (January 2000)						
EXAMINER		L	L			DAT	E CONSIDEREI	)	
EXAMINER: II	nitial if refer	ence co	onsidered, whet	her or not citatio	n is in conformance with	MPEP 609. Draw line	through citation if n	ot in conformance	
and not consid	erea. Includ	e copy	or this form Wi	ui next commun	cation to Applicant.				

	Page 20 of 20	
ATTY, DOCKET NO.	APPLICATION NO.	
2072.0010008/LBB/SJE	To be assigned	
FIRST NAMED INVENTOR		
Michelle M. Hanna		
FILING DATE	ART UNIT	
March 3, 2004	To be assigned	

				U.S. F	PATENT DOCUMEN	TS			
EXAMINER INITIAL		DOCI	JMENT BER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE	
	AA20								
	AB20		-						
	AC20								
	AD20								
	AE20								
	AF20								
	AG20								
	AH20	ļ							
	Al20								
	AJ20								
	AK20	<u> </u>							
	ANZU			FOREIG	N PATENT DOCUM	ENTE		1	
		1500	LIACATA	FOREIG	IN PAIENT DOCUM	IENIS		T	
EXAMINER INITIAL		NUM	UMENT IBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION Yes	
	AL20							No	
	AM20							Yes No	
	AN20							Yes No	
	AO20							Yes No	
	AP20							Yes No	
OTH			OTHER (	ncluding A	uthor, Title, Date, Po	ertinent Pages, etc	;.)		
	AR	<u>20</u>	Vogelstein, Science Pu	B., and Kinzle blishers Ltd. (	er, K.W., "The multistep 1993)	nature of cancer," <i>Ti</i>	ends Genet. 9:1:	38-141, Elsevier	
	AS	<u>20</u>	Wang, JY., et al., "Monovalent cations differ in their effects on transcription initiation from a σ-70 promoter of <i>Escherichia coli</i> , " Gene 196:95-98, Elsevier Science B.V. (1997)						
	АТ	<u>20</u>	Wu, D.Y., and Wallace, R.B., "The Ligation Amplification Reaction (LAR) - Amplification of Specific DNA Sequences Using Sequential Rounds of Template-Dependent Ligation," <i>Genomics</i> 4:560-569, Academic Press, Inc. (1989)						
EXAMINER		l	1		-	DAT	E CONSIDERE	)	
EXAMINER: I	nitial if refer	ence co	onsidered, whe	ther or not citati	on is in conformance with	MPEP 609. Draw line	hrough citation if n	ot in conformance	
and not consid	erea. Inclu	e copy	or unis torm W	iai next cominu	nication to Applicant.				